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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/691,421

10/17/2000

Xiao Ping Zhou

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04/09/2003

RITTER, LANG & KAPLAN
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EXAMINER

BEX, PATRICIA K

ART UNIT

PAPER NUMBER

1743

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DATE MAILED: 04/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/691,421

Applicant(s)

ZHOU ET AL.

Examiner

P. Kathryn Bex

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 August 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 October 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6-7, 10.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “ plurality of liners” in claim 11 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: “liners” in claim 11 is not supported within the instant specification. The specification does disclose the use of catalysts and paper on page 16.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 21-27 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the sealing device comprising sealing caps when sealing device comprise chamfered ridges and the base having a contact surface as recited in claim 21, but does not reasonably provide enablement for the sealing device comprising sealing caps when the base comprise chamfered ridges and the sealing device having a contact surface. The specification

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does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make/use the invention commensurate in scope with these claims. The use of alternate language in claim 1, from which claim 21 depends, produces embodiments which are not enabled by the disclosure. For example, Figure 6 does support the sealing device comprising sealing caps when sealing device comprise chamfered ridges and the base having a contact surface, but does not disclose the reverse.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-10, 12-13, 19-21, 26-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Wendelbo *et al* (WO 98/36826).

Wendelbo *et al* teach an apparatus for use in a parallel reaction block comprising a base 2 with a plurality of wells 1 (e.g. 10-10,000 wells from 0.2 to 2 ml). The wells are through-going perforations, or holes permanently closed at one end. The block can be made from stainless steel, aluminum, titanium, PEEK or other rigid material (page 5, lines 36- page 6, lines 10, page 7, lines 5-9). The apparatus comprising sealing means positioned over the wells for individually sealing each of the wells. The sealing means can be can be fastened on the either covers 7a-b, polymer film 3, or on a thin metal plate (page 7, lines 23-25). The sealing means can be ball 4 (e.g. sealing caps), conical or hemispheric protrusions that fit into the wells (page 7, lines 24-30). Alternatively, Wendelbo *et al* teach the base 2 machined or fastened with sharp protrusions 14

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(page 7, line 31- column 8, lines 3). The base comprising a plurality of aligned openings for receiving bolts 11 used to attach the cover to the base and force the sealing device into contact with the base (Fig. 3). Additionally, the sealing means may be spring biased (page 8, lines 10-13).

7. Claims 1, 3, 6, 8, 12-13, 19 and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by Manns (USP 4,948,442).

Manns teaches an apparatus comprising a base 24 with a plurality of wells 42. The wells are through-going perforations. The block can be made from a rigid material (column 3, lines 29-65). The apparatus comprising sealing means 22 positioned over the wells for individually sealing each of the wells. The base 24 machined or fastened with sharp protrusions 44 (Fig. 6). The sealing means formed from a material softer than the protrusions (column 4, lines 29-33). The assembly includes a cover 20 is positioned over the sealing device.

8. Claims 1, 3, 6-8, 12-13, 15, 17, 19-22, 26, 28-30 and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Sanadi (USP 5,741,463).

Sanadi teaches an apparatus comprising a base 115 with a plurality of wells 118. The wells and a plurality of vessels 119 positioned within wells. The vessels having an open upper end with chamfered ridges 120, 130 (Fig. 8A). The apparatus comprising sealing means 122 positioned over the wells for individually sealing each of the wells. The sealing means comprising a plurality of sealing caps 132, wherein a chamfered ridge 128 is formed in the lower end of the sealing cap (Fig. 8A). The sealing means formed from a material softer than the protrusions (column 11, lines 16-54). The assembly includes a cover 126 is positioned over the

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sealing device. Sanadi teaches the use of bolts 63 and holes 67 along with clips to secure the cover to the base (Fig. 4).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. Claims 14, 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wendelbo *et al* (WO 98/36826) or Sanadi (USP 5,741,463).

Wendelbo *et al* and Sanadi teach a base which is rectangular in shape, but fail to disclose a circular base. However, it would have been obvious to one of ordinary skill in the art to have changed the shape of the base, since it has been held that the configuration of a container is a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration of the claimed container was significant, see *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966) and MPEP 2144.04 (II, iv, b).

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12. Claims 9, 18, 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sanadi (USP 5,741,463).

Sanadi teach a base which is comprise a plurality of reaction wells containing vessels, but fail to disclose the use of more than 152 vessels. However, it would have been obvious to one of ordinary skill in the art to have increased the number of vessels, since it would have increase reaction throughput. Additionally, it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

13. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sanadi (USP 5,741,463).

Sanadi teach a base which is comprise a plurality of reaction wells containing vessels, but fail to disclose the use vessels made from stainless steel. However, it would have been obvious to one of ordinary skill in the art to have made the vessels from stainless steel since, it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

14. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wendelbo *et al* (WO 98/36826) in view of Akporiaye *et al* (WO 02/07873).

Wendelbo *et al* as previously discussed above do not teach the use of liners. Akporiaye *et al* do teach an apparatus for use in a parallel reaction block comprising a base 2 with a plurality of wells 1, the wells each being lined by an inert liner 15 (column 10, lines 3-22). Accordingly, it would have been obvious to one of ordinary skill in the art at the time of the

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claimed invention to have included in the apparatus of Wendelbo *et al* the use of liners, as taught by Akporiaye *et al*. The advantage of using the liner is that the central base is ready to be used again and again with no or only minimal cleaning, (page 10, lines 18-20).

Conclusion

15. No claims allowed.

16. The prior art made of record and not relied upon which is considered pertinent to applicant's disclosure are Mansky *et al*, Warner *et al* and Stockdale *et al*. They are cited of interest in that they show different embodiments of sealing multiwell plates.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to P. Kathryn Bex whose telephone number is (703) 306-5697. The examiner can normally be reached on Mondays-Thursdays, alternate Fridays from 6:00 am to 3:30 pm EST. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 308-4037.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0661.

Kathryn Bex

P. Kathryn Bex
Patent Examiner
AU 1743
April 4, 2003

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